## Get comfortable with your

# setback thermostat

Saving 15 to 75 percent on your heating and cooling costs—while maintaining your home's comfort—is easier than you ever imagined. You can do it simply by using a setback thermostat.

f your new home has a central heating and/or cooling system, it also came with an automatic setback thermostat. While this small box on the wall with buttons for time, temperature, days, heating and cooling may seem complicated at first glance, investing a little extra effort to learn and use its features can help you significantly reduce your energy bills.

While there are many varieties and models of automatic setback thermostats, they all ensure that your space conditioning system provides heating or cooling comfort when you determine that you need it. The aggravation of discovering you accidentally left the heat on while you were out for the day becomes a thing of the past with automatic thermostats.

Most thermostats installed in today's new homes are programmable, allowing you to enter at least one "at home" and "away from home" schedule for the weekdays and one for the weekend. Others feature full seven-day programming, enabling you to customize your heating and cooling system for any day of the week. Some models will start your furnace or air conditioner at the time you specify, while others reach the temperature you want at the time you want, meaning that heating or cooling will begin sooner than the time you programmed into the unit.

## Setback thermostats may come with a variety of



Accidentally leaving the heat on while you were out for the day becomes a thing of the past with automatic thermostats.

## Let your thermostat:

save you money in winter.

11:00 p.m. TEMP = 55°

It turns down your heat, when you sleep...

save you money in summer.

 $3:00 \text{ p.m. TEMP} = 85^{\circ}$ 

It turns off cool air, if you're not there!

# helpful "extras"

#### Such as:

- *Filter change light*reminds you when to change the furnace filter.
- Keypad lock prevents small children from accidentally (or mischievously) changing the thermostat programming.
- eliminates the need for you to flick a switch when your comfort needs change from the heating to the cooling season and vice versa.
- "Armchair" programming allows you to detach the thermostat from its base and enter your schedules from the comfort of a chair rather than stand next to the unit.
  - Low battery warning indicator reminds you to change the thermostat's battery, which keeps you from losing your programming during a power outage.

any models have daily schedules already built into the thermostat so that you change only those days that don't reflect your personal schedule. In addition, most models allow you to override the programming when your schedule changes. To save energy, you may want to manually turn the thermostat off when you are on summer vacation.

Thermostats can contain features that reduce the number of programming steps you need to take, such as a copy button to enter your schedule from one day of the week to another with a single push of a button. Features that simplify programming are particularly useful in zoned space conditioning systems. Zoned systems use more than one thermostat to separately control comfort in different rooms of the home, such as sleeping and living areas.

Remember that
cranking the
thermostat way up
for heating or
down for cooling
does not result in
quicker heating or
cooling, but causes
the system to run
longer and cost
you more.

Regardless of the "extras" that may come with your setback thermostat, its basic function is to automatically start and stop your heating or cooling system at least twice over a 24-hour period. This prevents the wasteful and costly expense that can occur when manually operated units are mistakenly left on after occupants leave the home for the day. In the heating season, a typical schedule may be to:

- start the heating system before you wake up
- shut off the system when leaving your home
- start again shortly before you return home and
- shut off again when you go to sleep

For winter operation, consider setting the thermostat to 55 degrees when you are asleep and 68 degrees when you are home. Do not set the temperature below 50 degrees because indoor water pipes may freeze.

Your cooling season schedule may only call for cooling over one period, such as the evening hours if that's when you're home. In some climates, or for weekend schedules, you may need to program the unit for a second cooling schedule. For summer operation, set the temperature to 78 degrees when your home is occupied and 85 degrees or higher when no one is home.

#### CALIFORNIA ENERGY COMMISSION

A few things you should know about

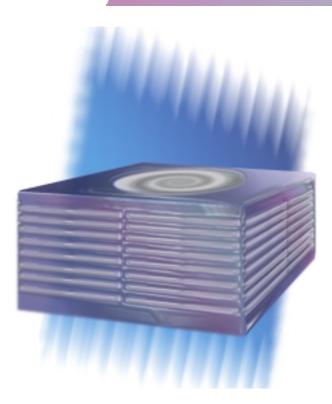
## setback thermostats

t is a common misconception that setting your thermostat back uses more energy than if your system is left on all day. In fact, setback thermostats, when used properly, *will* save energy and money.

You save energy during the day by lowering the temperature setting in winter and raising it in summer. The savings occur because you are not paying to run your system when no one is there. Your thermostat can be set to start up just before you return in the evening. Operating your system this way uses less energy than running it all day. You also save energy throughout the night by setting your heating or cooling system to remain off while you are asleep.



### Note for heat pump owners



Conventional setback thermostats may cause heat pumps to operate inefficiently in the heating mode. If setting the temperature back results in the auxiliary heater (electric strip or resistance) coming on, then select a more moderate temperature setback.

In cooling mode, a heat pump works the same as any air conditioner. If you turn up the thermostat in the cooling mode, you will save energy and money.

Some companies are now offering newly designed setback thermostats for heat pumps that make setting back the thermostat both an energy and dollar saving activity.

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